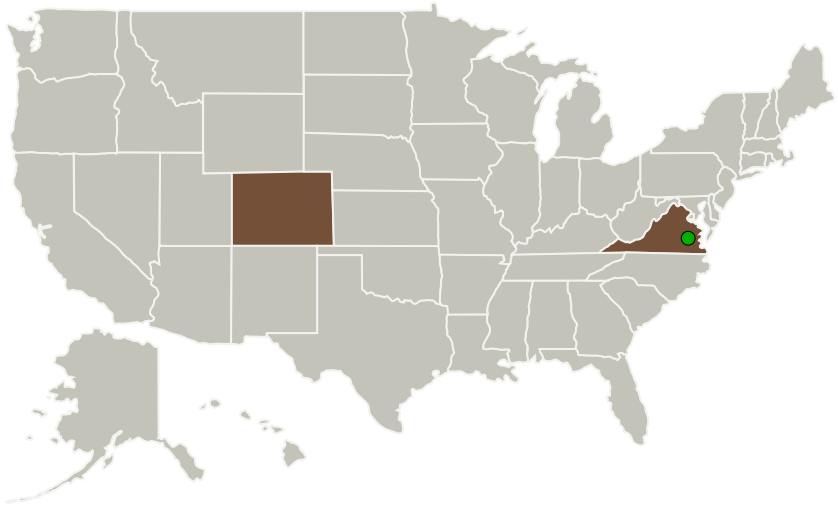
Next Generation Fiber Coherent Lidar System for Wake Vortex Detection, Phase I

Completed Technology Project (2011 - 2011)

Project Introduction

SibellOptics proposes to develop an eye-safe, long-range, compact, versatile, all-fiber wind LIDAR system for wake vortex measurement and other wind measurement applications that is more efficient, and reliable, and at a much lower up-front and lifetime cost than any wind LIDAR system currently available. It is proposed herein that the fiber transmitter sub-system be ordered and built on a breadboard and characterized.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
SibellOptics	Lead Organization	Industry	Lafayette, Colorado
Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia

Primary U.S. Work Locations	
Colorado	Virginia

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Table of Contents

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Project Transitions

February 2011: Project Start

September 2011: Closed out

Closeout Summary: Next Generation Fiber Coherent Lidar System for Wake Vortex Detection, Phase I Project Image

Closeout Documentation:

- Final Summary Chart Image*(https://techport.nasa.gov/file/140178)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

SibellOptics

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

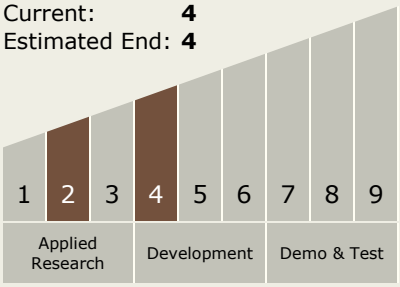
Carlos Torrez

Principal Investigator:

Russ Sibell

Technology Maturity (TRL)

Start: **2**
Current: **4**
Estimated End: **4**



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Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.5 Lasers

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System